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09/325,508	06/03/1999	MICHAEL A. CHACK	P0056	2904

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EXAMINER

THOMPSON, MARC D

ART UNIT	PAPER NUMBER
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2142

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DATE MAILED: 05/12/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**Application No.  
**09/325,508**Applicant(s)  
**CHACK**Examiner  
**Marc Thompson**Art Unit  
**2142**

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (e). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on Feb 24, 2003
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 33-45 is/are pending in the application.
- 4a) Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 33-45 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claims \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some\* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\*See the attached detailed Office action for a list of the certified copies not received.

- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). \_\_\_\_\_
- ☐ Interview Summary (PTO-413) Paper No(e). \_\_\_\_\_
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other:

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### **DETAILED ACTION**

#### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission, Amendment B, Paper #9, filed on 2/27/2003 has been entered.

2. Claims 33-45 are now pending.

#### ***Priority***

3. This application claims priority to provisional application number 60/121,214, filed February 22, 1999. Thus, the effective filing date for the subject matter defined in the pending claims in this application is 2/22/1999.

#### ***Claim Rejections - 35 USC § 112***

4. The following is a quotation of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 33-45 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for determining availability and/or allocation of *logical* connection

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resources, does not reasonably provide enablement for determining availability and/or allocation of *physical* connection resources, as claimed. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make or use the invention commensurate in scope with these claims.

The present specification recites a “limited number of connections are possible between server and [client]...the number of connections is determined by various factors, including the hardware capabilities of the server.” See Page 12, Line 24 through Page 13, Line 1. This is the extent of description drawn toward the physical aspect of the computing equipment being utilized. Applicant attempts to distinguish the claimed invention from the previously applied prior art, stating, “the resource being scheduled in this automated connection protocol is a server access resource, such as a port” in the response, Amendment B, Paper #9, Page 8, Lines 9-10. Again, this infers logical designation of resources (i.e., logical, or ‘well-known’ ports as known in the art), not a physical “port” to which a wire is connected. The claim language forces interpretation which is not commensurate with the disclosed specification. Thus, use of the term “physical” with regard to the claimed invention as amended is not held to be persuasive, since there is lacking support for this express functionality in the present specification.

6. Claims 33-45 are rejected under 35 U.S.C. 112, second paragraph, as failing to set forth the subject matter which applicant(s) regard as their invention.

7. The claims dictate “a plurality of physical connection resources of the server machine...” It is unclear what these physical connection resources are, and the scope of coverage being

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sought by Applicant. As noted above, the term “ports” as used in dependent claims (i.e., claims 36, 41, 45), without proper clarification as to any associated meanings with this word in light of either/both logical/physical contexts, results in the inability to easily ascertain the metes and bounds of the claimed subject matter. It should be noted that although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). The inclusion of an open-ended list of the “physical connection resources” which are being referred to in the claim is suggested, or better, an explicit description of the resources being utilized for any methodic resource availability determination(s). Of course, Applicant is advised to avoid any modifications involving new matter.

***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 33-45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Foladare et al. (U.S. Patent Number 5,907,547), hereinafter referred to as Foladare, in view of Jin et al. (U.S. Patent Number 6,189,033), hereinafter referred to as Jin, further in view of what was well known to one of ordinary skill in the art at the time the invention was made.

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10. The disclosed and claimed invention details functionality which determines whether effecting a connection with a [remote] server is possible given the current server system resources available, and when sufficient resources are not available, the system will queue the request for subsequent processing. The user/client/agent/operator is alerted that the user/client/agent will be notified when resources become available, and is then polled/queried to confirm operator intent that processing should occur/proceed when resources are currently available. The requesting clients are connected via generalized network types to the serving computers, typically involving TCP connection requests for retrieval of Internet web pages.

11. Foladare disclosed an internet capable methodology for providing connections between two disparate computers of merchants and customer service representatives. Client terminal (12) connected with server computer (14) for web page retrieval or other digital services through the use of well-known ports and other software mechanisms to further effect communication between client (12) and terminals (28, 30, 32). See Foladare, Column 3, Lines 9-29, Column 5, Lines 18-33, Column 5, Lines 44-62, Column 6, Lines 37-65, and Column 8, Lines 8-30. These sections further detail explicit data connection establishment between terminals (independently from a POTS telephone connection) including internet telephony, other on-line services available on the server(s), and the use of IP addresses and TCP layer transport pipe designations, i.e., ports. These features of Foladare clearly displayed 'protocol connection requests' and connection establishment based on these requests. Web page request and retrieval was notoriously well known at the time of invention, and typically implemented on well-known port 80. See, inter

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alia, Foladare, Column 5, Lines 18-33. Examiner takes Official Notice (see MPEP § 2144.03) that “well-known ports” (the use of consistent/standard numerical designations which denote a particular service type on an information connection) in a computer networking environment was well known in the art at the time the invention was made. See Conclusion section, below, for proper guidelines in challenging the taking of Official (judicial) notice.

While Foladare disclosed the invention substantially as claimed, Foladare did not expressly disclose the actual queuing of connection requests. While Foladare directly inferred this functionality (inter alia, Column 1, Lines 44-49), the queuing of requests was not expressly disclosed. Also, while Foladare did expressly suggest enabling online services accessible through the server(s) (Column 8, Lines 27-30), Foladare did not expressly mention any particulars of these services, or what this generalized term was meant to encompass. An ordinary artisan would have been motivated to search the related Internet and network services arts to find some examples of these suggested network services usable with the Foladare invention as disclosed, as well as exploring other described variants of the system (e.g., merchant facility utilizing a sole server, server cluster, geographically remote computers, etc., per Foladare, Column 8, Lines 8-18) for direct implementation of the invention on such systems, as suggested.

In the same art of Internet communications and content delivery, network connection establishment, and request queuing, Jin disclosed teachings relating to performance guarantees, an inherent problem in the networking arts. Additionally, the Jin system also disclosed overload protection (efficient use of computer(s) for response to client requests) and quantified,

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deterministic decision methodology for client request queuing resulting in acceptance, deferral, or denial of service fulfillment. See inter alia, Column 2, Lines 24-55. The environment of the Jin system was very similar to the Foladare system; Jin disclosed an interconnect network coupling the client(s) to a data access networking system providing data delivery services. See Figure 1, Column 3, Lines 18-26, and Column 4, Lines 10-19. Specifically, the system provided data delivery services to requesting clients over an intranet or global WAN internet. See Column 4, Lines 36-49. The system utilized an admission control policy serving to provide responses to requesting clients only when appropriate resources were available. See Column 6, Line 38 through Column 7, Line 15. Lastly, the Jin system used a "submission queue", where requests for services were forwarded ("queuing") after determination of sufficient resources was decided. See Column 8, Lines 46-65. Lastly, Jin expressly disclosed recognizing and queuing requests in accordance with TCP-based connection server types in Column 5, Lines 48-62. As above, the use of well-known port designations were widely implemented in the art at the time of invention. Thus, discerning and designating online services utilizing TCP port designations for connection based communication is not considered a novel improvement over the prior art of record.

In short, the combination of Foladare and Jin provided a request queuing system for various TCP-based connection oriented communications while controlling the number of connections to each/any of these services at any given time. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of request



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queuing provided by Jin into the request deferring system provided by Foladare in order to enable a functional queuing methodology for resources on the network, with or without human intervention or participation. Further, the use of TCP well-known port numbers would have been obvious to implement to one of ordinary skill in the art, since this was a widely implemented, notoriously well known standardized request format for network requests. Thus, combination of these teachings would have been obvious to one of ordinary skill in the art at the time the invention was made. The invention as claimed is fully disclosed by these combined teachings, as follows:

(Claims 33, 38, 42)

a. *Receiving a connection protocol request from a client machine for a connection to a server machine*, was taught by Foladare in Column 5, Lines 9-33, and was taught by Jin, inter alia, in Column 5, Lines 48-62.

b. *Determining that [no connection resources of the] server machine can accommodate the requested connection*, was taught by Foladare in Column 1, Lines 44-47. This functionality was inherent in a system of this type; if connection resources were available at the time of request, the connection would have been immediately established, if not, alternative procedure(s) (e.g., Foladare) were invoked. This inherently involved resource determination. Also see Jin, Column 6, Lines 11-26 (threshold values), and Column 6, Lines 45-47.

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c. *Sending to the client machine a message to inform an operator of the client machine that the operator will be notified when the server machine can grant the requested connection,* was taught by Foladare, inter alia, in Column 1, Lines 44-47.

d. *Queuing the received connection protocol request,* was taught expressly by Jin in Column 5, Line 48 through Column 8, Line 65. This functionality was directly inferred by the “waiting for connection” period evident in Foladare prior to step (48), described in Column 5, Lines 18-61.

e. *Determining that the at least one of the physical connection resources of the server machine can accommodate the requested connection,* was most clearly taught by Jin in Column 6, Lines 45-47.

f. *Sending to the client machine a message to inform the operator of the client machine that the requested connection can be granted and requesting a confirmation of the connection protocol request,* was taught by Foladare in Column 4, Lines 8-45.

g. *Receiving the confirmation of the connection protocol request from the client machine the confirmation being caused by the operator of the client machine,* was taught by Foladare in Column 4, Lines 8-13.

h. *Allowing the connection between the client machine and the server machine to be established according to a connection protocol,* was taught by Foladare in Column 4, Lines 8-29, and was expressly taught by Jin in Column 5, Line 48 through Column 6, Line 58.

(Claims 34, 39, 43)

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i. *Connection protocol request comprises a TCP connection request*, was taught by Jin in Column 5, Lines 48-62.

(Claims 35, 40, 44)

j. *[Client accesses an internet server]*, was taught by Foladare in Column 5, Lines 31-33. The “well known port” (80) indicated an hypertext transfer protocol (HTTP) request. Also see Jin, Column 5, Lines 48-62.

(Claim 36, 41, 45)

k. *[Connection] resources comprise a plurality of connection ports*, was taught by Foladare, inter alia, in Column 5, Lines 19-33, and was substantially taught by Jin in Column 5, Lines 48-62. Also note Official Notice regarding well known port-to-service number assignments to designate services to particular port numbers.

l. *Wherein receiving the confirmation of the connection protocol request comprises receiving an indication that the operator still wishes [to effect] a connection*, was taught by Foladare in Column 4, Lines 8-29.

12. Since all the claimed limitations were fully disclosed by the combination of Foladare, Jin, and subject matter known to one of ordinary skill in the art at the time the invention was made, claims 33-45 are rejected.

#### ***Response to Arguments***

13. Applicant's arguments filed 2/24/2003 have been fully considered but they are not persuasive.

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a. Applicant argues differences between the disclosed invention and the Foladare teachings in the Response, Paper #9, Amendment B, filed 2/24/2003, at Page 7, Line 13-19. It is noted this portrayal of the Foladare teachings is identical to the current specification at Page 14, Lines 3-17. Indeed, the present specification mentions alternatively contacting the remote requesting user using a computer, again, parallel to Foladare. The specification continues logically to connection(s) over an internet using logical port assignments for server resources, where Foladare provided connectivity using both an internet and PSTN. See Figure 1. Lastly, the provision for connecting server computing equipment to requesting client(s) as opposed to people connecting to other people is not held to be persuasive, since Foladare specifically disclosed establishing instant messaging (IM) as argued by Applicant in the Response, Paper #9, Amendment B, filed 2/24/2003, at Page 7, Line 13-19, providing a computing equipment to computing equipment connection. It is irrelevant where each computing process receives its' input from, whether it be a user or computer process. The terminal(s) providing information or services in response to an explicit client request was a server. Further, Foladare specifically recited connection between client and server terminal(s) after the 'operator' affirmatively accepts connection when resources were available. See Column 4, Lines 8-13. Lastly, Jin, as currently and previously applied, disclosed fully the provision for computer-to-computer connection, requests, and responses, and the appropriate queuing of requests to maintain operation within specific constrictive bounds, e.g., number of simultaneous connections. Novelty based on this feature and line of argument is not considered persuasive.

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b. In response to Applicant's arguments against the references individually, one cannot show novelty or nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). Further, where Applicant states "Examiner agreed to withdraw all art cited with the exception of Foladare", it is noted that no art or rejection relating to previously asserted claims has been withdrawn. The Examiner remains firm on the combination of teachings as previously and currently applied to the claimed invention as pertinent and fully disclosing. Further, each Office action has addressed completely distinct claims. No two actions have addressed the same claimed invention.

c. The Applicant is entitled to traverse any/all official notice taken in this action according to MPEP § 2144.03. However, MPEP § 2144.03 further states "See also *In re Boon*, 439 F.2d 724, 169 USPQ 231 (CCPA 1971) (a challenge to the taking of judicial notice must contain adequate information or argument to create on its face a reasonable doubt regarding the circumstances justifying the judicial notice)." Specifically, *In re Boon*, 169 USPQ 231, 234 states "as we held in *Ahlert*, an applicant must be given the opportunity to challenge either the correctness of the fact asserted or the notoriety or repute of the reference cited in support of the assertion. We did not mean to imply by this statement that a bald challenge, with nothing more, would be all that was needed". Further note that 37 CFR § 1.671(c)(3) states "Judicial notice means official notice". Thus, a traversal by the Applicant that is merely "a bald challenge, with nothing more" will be given very little weight.

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d. Applicant arguments only address Foladare as prior art, and misinterprets the teachings therein from the perspective of one with ordinary skill in the art at the time of invention. Applicant admits Foladare disclosed establishing connections in a client-server system for computer processes running and each end-point, i.e., instant messaging, but argues that the teachings are related to a "people scarcity problem". Regardless of the presence of humans at the terminal(s), the effected connection was no different. The operation of the queuing methodology was equally applicable to a no-human request-response system as in Jin. The combination of the two queuing systems into a single system laterally described various online services, application endpoints, and basic network connectivity involving the regulating of access to network resources using a queuing system and end user/operator confirmation. Any additional argument beyond this basic fact seems misleading.

14. Additionally, Applicant's arguments with respect to claim have been considered but are moot in view of the new ground(s) of rejection.

15. It is noted that the Applicant has had opportunities to amend the claimed subject matter, and has failed to modify the claim language to distinguish over the prior art of record by clarifying or substantially narrowing the claim language, even in light of newly submitted claims in response to each Office action. Applicant apparently intends that a broad interpretation be given to the claims and the Examiner has adopted such in the present and previous Office action rejections. See *In re Prater and Wei*, 162 USPQ 541 (CCPA 1969), and MPEP § 2111.

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Applicant employs broad language which includes the use of words and phrases which have broad meanings in the art. In addition, Applicant has not argued any narrower interpretation of the claim language, nor amended the claims significantly enough to construe a narrower meaning to the limitations. As the claims breadth allows multiple interpretations and meanings which are broader than Applicant's disclosure, the Examiner is forced to interpret the claim limitations as broadly as reasonably possible, in determining patentability of the disclosed invention.

16. It is noted that all matters discussed in the interview on 1/21/2003, have been disregarded. Any and all proposed/discussed amendments to the claims (i.e., added/elaborated limitations) for the purpose of prosecution advancement were omitted. Any future discussions or interviews granted will be at Examiner discretion, and will require a proposed agenda of the issues for discussion at the interview including associated proposed amendments to the claims to further limit the claimed invention and issues at hand.

#### ***Conclusion***

17. As a courtesy to the Applicant, the above action is made NON-FINAL to enable Applicant to respond without undue burden, wherein a First-Action Final Office Action would normally be appropriate (See MPEP §706.07(b)).

18. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

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a. Reynolds, et al., "Assigned Numbers", Request for Comments (RFC 900), June 1984, inter alia, pp13-14, was a prime example using well known port numbers for TCP connections to designate end-point applications and information types.

b. Mogul (U.S. Patent Number 5,014,221) disclosed TCP/IP processes and connection establishment using queuing.

c. Pitkin et al. (U.S. Patent Number 5,341,477) disclosed brokering requests to a set of server processes while limiting connections to local policy limits.

d. Govett (U.S. Patent Number 5,761,507) disclosed a transaction manager using queuing methods to port-designated processes acting to regulate the number of connections to operating server processes by spawning and/or destroying new server processes.

e. Narenran et al. (U.S. Patent Number 6,070,191) disclosed HTTP request redirection based on access rates (i.e., connections per unit time).

f. Wright et al. (U.S. Patent Number 6,078,959) disclosed queuing connection requests and notification of connection availability and allocation.

g. Hu (U.S. Patent Number 6,173,322) disclosed the use of static rules to govern connection establishment in a network environment.

19. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Marc Thompson whose telephone number is (703) 308-6750. The Examiner can normally be reached on Monday-Friday from 9am to 4pm, EST.



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If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Mark Powell, can be reached at (703) 305-9703. The fax phone number for this Group is (703) 305-9731.

The fax phone numbers for the organization where this application is assigned are as follows:

(703) 746-7238	(After Final Communications only)
(703) 746-7239	(Official Communications)
(703) 746-7240	(for Official Status Inquiries, Draft Communications only)

Inquiries of a general nature relating to the general status of this application or proceeding should be directed to the 2100 Group receptionist whose telephone number is (703) 305-3900, or Customer Service for Technology Center 2100 at (703) 306-5631.

*MARC THOMPSON*  
Marc D. Thompson  
Patent Examiner  
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